

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Applicant: Axel ULLRICH et al.  
Title: CLK PROTEIN KINASES AND RELATED PRODUCTS AND METHODS  
Prior Appl. No. 09/905,999  
Prior Appl. Filing Date: 07/17/2001  
Examiner: Unassigned  
Art Unit: Unassigned

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Mail Stop PATENT APPLICATION  
Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants submit herewith on Form PTO/SB/08 a listing of the documents cited by or submitted to the U.S. PTO in parent application Serial No. 09/905,999, filed 07/17/2001, which is a continuation of application Serial No. 09/127,248, filed 07/31/1998, which is a continuation-in-part of application Serial No. 08/877,150, filed 06/17/1997. As provided in 37 CFR §1.98(d), copies of the documents are not being provided since they were previously submitted to the United States Patent & Trademark Office in the above-identified parent application.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

**TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

Applicants respectfully request that the listed documents be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date April 16, 2004

By 

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				First Named Inventor		Axel Ullrich
				Group Art Unit		Unassigned
				Examiner Name		Unassigned
Sheet	1	of	8	Attorney Docket Number		034536-1468

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	4,945,050		SAMFORD et al.	07-31-1990	
	A2	5,283,173		FIELDS et al.	02-01-1994	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	A3	WO	93/09236	A1	BAYLOR COLLEGE OF MEDICINE	05-13-1993		
	A4	WO	94/23039	A1	THE INSTITUTE OF CANCER RESEARCH: ROYAL CANCER HOSPITAL	10-13-1994		
	A5	WO	96/18738	A2	SUGEN INC. et al.	06-20-1996		
	A6	WO	97/35019	A1	GENETECH INC.	09-25-1997		
	A7	WO	97/48723	A2	MAX-PLANCK-GESELLSCHAFT SUR FORDERUNG DER WISSENSCHAFTEN E.V.	12-24-1997		

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	A8	ABE et al., "Molecular Characterization of a Novel Metabotropic Glutamate Receptor mGluR5 Coupled to Inositol Pohosphate/Ca <sup>2+</sup> Signal," <u>J. Biol. Chem.</u> 267(19):13361-13368(1992)		
	A9	Abstract from 94 <sup>th</sup> Annual Meeting of the American Gastroenterological Association, Boston, May 15-21 (1993)		
	A10	AOKI'et al., "The Novel Protein-Tyrosine Phosphatase PTP20 Is a Positive Regulator of PC12 Cell Neuronal Differentiation," <u>J. Biol. Chem.</u> 271(46):29422-29426 (1996)		

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	A11	BARFORD et al., "Crystal Structure of Human Protein Tyrosine Phosphatase 1B," <u>Science</u> 263:1397-1403 (1994)		
	A12	BECKER et al., "cDNA cloning and characterization of rat Clk3, a LAMMER kinase predominantly expressed in testis," <u>Biochim. Biophys. Acta</u> 1312(1):63-67 (1996)		
	A13	BECKMAN et al., "An Adhesive Domain Detected in Functionally Diverse Receptors," <u>Trends Biochem. Sci.</u> 18:40 (1993)		
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	A15	BENDER et al., "AFC1, a LAMMER kinase from Arabidopsis thaliana, activates STE12-dependent processes in yeast," <u>Proc. Natl. Acad. Sci. USA</u> 91:12105-12109(1994)		
	A16	BLASCHUK et al., "Identification of a Conserved Region Common to Cadherins and Influenza Strain A. Hemagglutinins" <u>J. Mol. Biol.</u> 211, 679-682 (1990)		
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	A18	CHAO, "Growth Factor Signaling: Where is the Specificity?" <u>Cell</u> 68:995-997 (1992)		
	A19	CHENG et al., "A Novel Protein Tyrosine Phosphatase Expressed in lin <sup>lo</sup> CD34 <sup>hi</sup> Sca <sup>hi</sup> Hematopoietic Progenitor Cells," <u>Blood</u> 88:1156-1167 (1996)		
	A20	CLOSSEK et al., "Cloning, Characterization, and Differential Expression of MDK2 and MDK5, Two Novel Receptor Tyrosine Kinases of the Eck/Eph Family," <u>Oncogene</u> 11:2085-2095 (1995)		
	A21	COLWILL et al., "The Clk/Sty Protein Kinase Phosphorylates SR Splicing Factors and Regulates Their Intracellular Distribution," <u>The EMBO Journal</u> 15(2):265-275 (1996)		
	A22	COOL et al., "DNA Isolated from a Human T-cell Library Encodes a Member of the Protein-tyrosine-phosphatase Family," <u>Proc. Natl. Acad. Sci. USA</u> 86, 5257-5761 (1989)		
	A23	CUNNINGHAM et al., "Neural Cell Adhesion Molecule: Structure, immunoglobulin-Like Domains, Cell Surface Modulation, and Alternative RNA Splicing" <u>Science</u> 236, 799-806 (1987)		
	A24	CURIEL et al., "Gene Transfer to Respiratory Epithelial Cells via the Receptor-mediated Endocytosis Pathway," <u>Am. J. Respir. Cell. Mol. Biol.</u> 6, 247-252 (1992)		

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	A25	DIGNAM et al., "Accurate transcription initiation by RNA polymerase II in a soluble extract from isolated mammalian nuclei," <u>Nucleic Acids Research</u> , 1983, pp. 1475-1489, Vol. 11, No. 5	
	A26	DINGWALL et al., "Nuclear targeting sequences – a consensus," <u>TIBS</u> , December 1991, pp. 478-481, Vol. 16	
	A27	DUNCAN et al., "Alternative Splicing of STY, a Nuclear Dual Specificity Kinase*," <u>The Journal of Biological Chemistry</u> 270:21524-21531 (1995)	
	A28	EATON et al., "Construction and Characterization of an Active Factor VIII Variant Lacking the Central One-Third of the Molecule" <u>Biochemistry</u> 25(26) 8343-8347 (1986)	
	A29	<u>EMBL Accession No. U49853</u> , "Sequence Mus Musculus Protein Tyrosine Phosphatase nRNA, Complete cds", XP-002034266 (3/27/96)	
	A30	<u>EMBL Accession No. U55057</u> , "Mus Musculus Receptor Protein Tyrosine Phosphatase-Lambda (Ptp-Lambda) Mrna, Complete cds.," XP-002064044	
	A31	FENDLY et al., "Characterization of Murine Monoclonal Antibodies Reactive to Either the Human Epidermal Growth Factor Receptor or HER2/neu Gene Product," <u>Cancer Research</u> 50, 1550-1558 (1990)	
	A32	FIELD et al., "Cloning and Characterization of CAP, the S. Cerevisiae Gene Encoding the 70 kd Adenylyl Cyclase-Associated Protein" <u>Cell</u> 61:319-327 (1990)	
	A33	FLORES et al., "Nuclear Localization of the PEP Protein Tyrosine Phosphatase" <u>Mol. Cell. Biol.</u> 14:4938-4946 (1994)	
	A34	FRY et al., "New Insights into Protein-tyrosine Kinase Receptor Signaling Complexes," <u>Protein Science</u> 2:1785-1797 (1993)	
	A35	FU, "The superfamily of arginine/serine-rich splicing factors," <u>RNA</u> 1:663-680(1995)	
	A36	GARTON et al., "A.J. and Tonks, N.K., PTP-PEST: a protein tyrosine phosphatase regulated by serine phosphorylation", <u>EMBO J.</u> 13:3763-3771 (1994)	
	A37	GenBank Database Accession No. AA059682 (version GI: 1553435), Sept. 23, 1996, accessed 1/22/01	
	A38	GenBank Database Accession No. W89331 (version GI:1538524), Sept. 12, 1996, accessed 1/22/01	

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	A39	HAMMER et al., "Spontaneous Inflammatory Disease in Transgenic Rats Expressing HLA-B27 and Human $\beta_2m$ : An Animal Model of HLA-B27-Associated Human Disorders," <u>Cell</u> 63, 1099-1112(1990)		
	A40	HANES et al., "Characterization by cDNA Cloning of Two New Human Protein Kinases: Evidence by Sequence Comparison of a New Family of Mammalian Protein Kinases," <u>J. Mol. Biol.</u> 244(5):665-672 (1994)		
	A41	HARADA et al., "Selection of RNA-binding peptides in vivo," <u>Nature</u> 380:175-179 (1996)		
	A42	HEDLEY et al., "An Amino Acid Sequence Motif Sufficient for Subnuclear Localizaion of an Arginine/Serine-rich Splicing Factor" <u>Proc. Natl. Acad. Sci. USA</u> 92:11524-11528 (1995)		
	A43	HILLIER et al., Accession No. R54222. Genbank database. The WashU-Merck EST Project (18 May 1995).		
	A44	HOWELI et al., "STY, a Tyrosine-Phoshorylating Enzyme with Sequence Homology to Serine/Threonine Kinases," <u>Molecular and Cellular Biology</u> 11(1):568-572 (1991)		
	A45	JIANG et al., "The $\alpha$ Subunit of Merpron A" <u>J. of Biol. Chem.</u> 267:9185 (1992)		
	A46	JOHNSON and SMITH, "Molecular Cloning of a Novel Human cdc2/CDC28-like Protein Kinase," <u>J. Biol. Chem.</u> 266(6):3402-3407 (1991)		
	A47	JOHNSTON et al., "Isolation of the Yeast Regulatory Gene <i>Gal4</i> and Analysis of its Dosage Effects on the Galactose/melibiose Regulon," <u>Proc. Natl. Acad. Sci. USA</u> 79:6971-6975 (1982)		
	A48	KASPRZAK et al., "Location of a Contact Site Between Acting and Myosin in the Three-Dimensional Structure of the Acto-S1 Complex," <u>Biochemistry</u> 28, 9230-9238 (1989)		
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	A51	KIM et al, "Characterization of the PEST family protein tyrosine phosphatase BDP1," <u>Oncogene</u> 13(10):2275-2279 (1996)		
	A52	KOHTZ et al., "Protein-protein interactions and 5'-splice-site recognition in mammalian mRNA precursors," <u>Nature</u> 368:119-124(1994)		

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	A54	LAMMERS et al., "Differential Activities of Protein Tyrosine Phosphatases in Intact Cells," <u>J. Biol. Chem.</u> 268, 22456-22462 (1993)		
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	A60	MAURO et al., "Homophilic and Heterophilic Binding Activities of Nr-CAM, a Nervous System Cell Adhesion Molecule" <u>J. Cell Biol.</u> 119, 191-202 (1992)		
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	A62	MERMOUD et al., "Regulation of mammalian spliceosome assembly by a protein phosphorylation mechanism," <u>EMBO J.</u> 13:5679-5688 (1994)		
	A63	MILLAUER et al., "Glioblastoma Growth Inhibited <i>In Vivo</i> by a Dominant-negative Flk-1 Mutant," <u>Nature</u> 367:576-579 (1994)		
	A64	MIZUNO et al., "Developmental Regulation of Gene Expression for the MPTPδ Isoforms in the Central Nervous System and the Immune System" <u>FEBS</u> 355, 223 -228 (1994)		
	A65	NAYLER et al., "Characterization and comparison of four serine- and arginine-rich (SR) protein kinases," <u>Biochem. J.</u> , 326:693-700 (1997)		

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	A67	NELSON et al., "Detection of acridinium esters by chemiluminexence," <u>Nonisotopic DNA Probe Tehcniques</u> , 1992, pp. 275-310		
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				First Named Inventor	Axel Ullrich
				Group Art Unit	Unassigned
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